No 92

March 1st 1827

#18

Cynanche Trachealis

E. M. Blaine
Carlisle
Penn

City Hotel 3rd St.

Passed March 31st 1827
W. E. H.

Cynanche Trachealis—

In selecting the subject of the following remarks, for a Thesis, I do not pretend to offer any new view of the pathology of this important complaint; but merely to epitomize, what from my experience, (though very limited) I consider the best history of its causes, symptoms, and treatment— Cynanche Trachealis is a disease, well worthy the attention of the American Practitioner; not only on account of its frequent occurrence, amongst a class of very interesting patients; but because it deprived of life, the great and good man, who was the efficient agent, in enabling him to take the elevated station in society, to which his talents and industry entitle him— It has been proposed by some, to change the nosological name of this complaint, to Trachitis— this probably indicates better its nature, but not at the same time its seat, as the effused lymph, or membrane has been found extending as far as the bronchia could be traced by the knife— Dr. Cullen's definition of it, is, therefore not altogether correct— viz— That it is an inflammation of the glottis, larynx, or upper part of the trachea, whether it affect the membranes of these parts or muscles adjoining— If we add to this

definition, that the inflammation extends sometimes throughout the whole of the trachea, the bronchiae, and occasionally to the substance of the lungs themselves, we then include all the parts affected by it — This disease has been thought by some writers, to be of modern origin, but this, considering the causes producing it, can not well be the case; and in fact it is described by Boerhaave — though the profession is indebted to Dr. Home of Edinburgh for the first correct view of it — Croup has been usually described as consisting of two forms — viz. Spasmodic and inflammatory — It has also been devided into two species — Idiopathic and symptomatic — as the consequence of catarrh, measles, cynanche maligna &c — These distinctions I think are without foundation — That it is frequently accompanied by a spasmodic action of the muscles in the neighbourhood is true; but this I believe is always a secondary effect, owing to sympathetic irritation extending to those muscles from the inflamed membrane — All those cases with croup symptoms, and described as such, unaccompanied by febrile action, were most likely cases of Asthma — It is always an original disease, located primarily, in the mucous membrane of the

larynx and trachea; and never consequent upon any other affection. Much has been written concerning the membrane produced by this peculiar inflammation. That an effusion of coagulable lymph, presenting a membranous appearance, does take place in croup; can not well be doubted, considering the respectable testimony of the fact, we now possess, derived from post mortem examinations. but that it is, of as frequent occurrence as some physicians assert, I do not believe. My own view of the matter, is, that it will only be found, in those protracted cases, where the inflammation has existed long enough to form it; and that it will never be met with, in cases of short duration. As death here occurs, from suffocation; induced, by a spasmodic action of the surrounding muscles, with probably, a thickening of the mucous membrane of the trachea and larynx. This substance can not be considered as an altered secretion of the mucous membrane; or we might expect to meet with it frequently, in all catarrhal affections of those parts. The received opinion at present, is, I believe, that it is an exudation from the exhalant arteries, analogous to that produced by the inflammation of other internal membranes

Croup is not contagious as some writers believe; though it is occasionally endemical, and there often exists a predisposition in the same family – It has been considered, and particularly by European writers, as peculiarly a disease of childhood, and confined to the time intervening, the removal of the child from the breast, and eight or ten years of age – This in a general way may be correct, though there are frequent examples of its attacking infants at the breast, as every American practitioner well knows; and the reason why they are not equally as subject to it as older children may be readily accounted for, in their not being as much exposed to its exciting causes – That adults sometimes suffer from it, the death of the illustrious Washington already referred to in this paper, will ever be a memorable example; and I am at present, acquainted with an old medical gentleman, who a few years since, nearly perished from an attack – For its rare occurrence after puberty the ingenious reason assigned by Dr. Chryne is no doubt correct. Viz. "That it is owing to the change which happens in the constitution at puberty, and perhaps, in a more peculiar man-

way in the change which the upper part of the mind is undergone." He has probably never been more in a family, those enjoying it, with an embrace of earlier views and the favourites of the domestic circle, an unfortunate but too frequently the subject of its attacks. From its more frequent occurrence during winter and spring, the early time, may, no doubt, exposure to colds, or rather some allege, a combination of cold and moisture. My own observation leads me to conclude, that it may as readily be induced by change of temperature from warm to cold, at any season, and in any climate, and that any unusual quantity of moisture in the atmosphere, is not necessary to its production. The diagnostic symptoms of this disease are so peculiar, that it can seldom be mistaken for any other, unless it may be asthma, and even then, it requires no great discrimination, to discover the difference. It attacks either gradually or suddenly. If in the former way, the little patient appears for some time, languid, dull and inactive, with a languid expression of countenance and not much interested in his usual plays and amusements.

at the same time a cough commences, which soon in its sound very differs from that of common catarrh; and accompanied with other symptoms continues to increase in frequency and violence until the disease is completely developed. It is often induced suddenly, without any previous warning, during the night or most frequently towards morning — the patient may have gone to bed, apparently in high health and spirits. This usually occurs after a great deal of exposure during the day to cold and moisture, or to both — the child having continued at play, with its companions in noisy mirth until late in the evening, or perhaps sliding upon ice during the prevalence of a high and cold wind. The examinations by dissection confirm the view I have taken of this complaint. The mucous membrane of the larynx and trachea, is covered with coagulable lymph, adhering strongly to it, but more abundant, and of firmer consistence, in the upper part of the trachea than elsewhere. The lungs have been found amply involved in the inflammation, as evidenced by the hardness of their texture, adhesion to the dura,

and stiff membrane, a rise of pleuritic matter ultimately
ensues — erysipelatous appearance, and pulmonary the lastly, as before
suggested, or, no doubt only, to not such, in those protracted
cases where the inflammation has existed for some time —
When the disease is completely formed, the following is the
in a general way the best account of its symptoms — the
hoarse, barking & dry cough — which is now accompanied with
vomiting of a viscid phlegm — is increased in frequency
and violence — agitating the patient more and more
at each return — The countenance is flushed and swelled —
The eyes inflamed and watery, and the mouth frequently
filled with a ropy mucous or saliva — the local affection
now shows itself, by a difficult and laborious respiration,
accompanied with a wheezing or hissing sound; not unaptly
by compared by some, to the crowing of a cock, or the
sounds of the piston of a dry pump — The pulse is frequent
the skin hot and dry — the tongue is crusted with a white
fur indicative of inflammation; and great restlessness and
anxiety prevail — drowsiness comes on, and the child appears
to slumber during the intervals of the paroxysms; but from

the it is soon by a violent fit of coughing rendered and makes the most convulsive and distressing efforts to renew respiration — As the disease advances the breathing becomes more difficult the child becomes weak and struggling with the effect against its operation — The face and lips are livid or black as in cyanosis — the gums white and the tongue black. The pulse is now small rapid and fluttering and there is great thirst — At this period, I have seen effusion take place into the cellular texture of the eyelids, and into those livid spots on the skin from which the disease has been called Purpura — About this time, convulsions occasionally supervene, particularly in very young children — In this distressing situation, the little sufferer continues, until death sooner or later, according to the strength and constitution, mercifully steps in and closes the scene — The cough being the best diagnostic symptom in the forming stage of croup, it should be particularly attended to; as it is only at this time, that we can consider the disease as completely under the controul of medicine — It is of a very peculiar kind, much better recollected, than described — It is always

accompanied with hoarseness; but this only at first recoverable in coughing, and not in speaking — Its sound is clear and distinct, and has been probably thought, to resemble the barking of a small dog, or as if it issued from a trumpet or any other metallic tube — It appears as if suddenly excited by the irritation of some foreign body, in the larynx or trachea; and the child seldom complains of pain after the fit, as in the cough of catarrh — Croup though a dangerous disease — may I think now be considered, as much under our controul, as any other inflammatory affection occurring in a healthy constitution — Its duration is uncertain, much depending on the age and constitution of the patient — It proves fatal sometimes, as we may readily conceive from its nature in a few hours, occasionally it is protracted for a week or longer, but usually, if not arrested, it destroys life in the course of 2 or 3 days — As to the treatment, I conceive that this may be best detailed, by dividing it into three stages, and particularly according to the view Dr. Dewees has taken of it viz. the first, second, and third or congestive —

[illegible]

our measures should be prompt and energetic, the patient must be refrigerated by a copious emetic or effusion — where the first is to be done in my estimation, if to excite free vomiting, and for this purpose, I would empty the watery or mucous solution upon a vinegar antimony, but continuing to use water if there be a desire as the nausea or the inner mucous membrane to do so — If the emetic does not operate promptly, the patient should be put into a warm bath, at a temperature as greater, ranging up from 90 to 150, according to the extent of inflammation and pain — this to calm the excitement and bring on the desired effect of the medicine in the mean time — according the progress of the complaint, our next resource is the lancet, especially if there be much pulsation, which about this time often occurs, it is in almost every case occurring in this climate — It should be used to the full extent of its powers and a decided effect upon the circulation, by a reaching a syncope, or if the attack be very violent, it should be carried on until relief is obtained — After

[illegible]

so much good in this stage. It offers a great control over the disease, [illegible] [illegible] [illegible]

were carried ad deliquium animi, and each to an approach to this state, before relaxation of the muscles could be induced. The child was cured of the croup, but the system never fully reacted, and it died 4 or 5 months afterwards, of general debility, without apparently any local affection, unless there may have been some obstruction of the mesenteric glands. In the third or congestive stage, when effusion has taken place — the febrile action is moderated, and the patient for a time appears relieved, but this the experienced practitioner well knows, is, a deceitful calm, and that the chances are terribly multiplied in favour of death. The indications are to get rid of the effused lymph and to prevent its reproduction — unfortunately to accomplish this, we possess but slender means. The only remedy to be relied on, is vomiting, and as it frequently is of great importance to husband, what little strength remains, different emetics have been recommended by different writers. Much has been said in favour of the vitriolic, particularly the sulph. Zinci, as operating without creating debility. I believe that it would be of service.

But it is here, as an emetic, as well as in extinguishing in the second stage the remains of the disease by its expectorant virtues, that senka displays its unrivalled powers — A strong decoction of it should be given, and if necessary, as much laudanum, as will prevent its operation on the bowels — In this stage it often becomes necessary to support the strength of the little patient, this is to be done in the usual way, by allowing a more nutritious diet, consisting of the farinaceous articles, such as sago, tapioca, arrow root, and even sometimes weak wine whey — As a last resource, tracheotomy has been performed, but the little success attending it hitherto, does not warrant us in placing much confidence in it —